ATTACHMENT 1 to Defendant's Reply In Support of Motion to Strike Case No. 6:19-cv-59-RWS

Exhibit B

Lonestar Technological Innovations, LLC, v. Acer, INC., et al.

Yaron Menczel

Page 1

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

TELEPHONE DEPOSITION OF YARON MENCZEL October 11, 2016

LONESTAR TECHNOLOGICAL INNOVATIONS, LLC,

Civil Action No. 6:15-cv-00973-JRG-JDL

Plaintiff,

LEAD CASE

v.

JURY TRIAL DEMANDED

ACER, INC. and ACER AMERICA CORPORATION,

Defendants.
LONESTAR TECHNOLOGICAL
INNOVATIONS, LLC,

Civil Action No.

6:15-cv-00972-JRG-JDL

Plaintiff,

CONSOLIDATED CASE
JURY TRIAL DEMANDED

v.

SHARP ELECTRONICS CORPORATION,

Defendant.

Pursuant to Notice and the Federal Rules of Civil

Procedure, the telephone deposition of YARON MENCZEL, taken by the Acer Defendant, was held at 1400 Wewatta Street, Suite 600, Denver, Colorado, 80202, on Tuesday, October 11, 2016, at 9:03 a.m., before Jason T. Meadors, RPR, CRR, CRC, and Notary Public.

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Page 2
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             APPEARANCES
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         For the Sharp Electronics Defendant
19
    Also Present:
20
      Ken Fung (by telephone)
21
22
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		Page 4
1		YARON MENCZEL,
2	having be	en first duly sworn to state the whole truth,
3	was exami	ned and testified as follows:
4		EXAMINATION BY MR. TING:
5	Q	Good evening for you, Dr. Menczel. How are
6	you doing	?
7	А	Good. Thank you.
8	Q	Before we begin, how do I pronounce your
9	last name	?
10	А	Menczel.
11	Q	Menczel?
12	А	Yeah. Good.
13	Q	Okay. Good. So can you please state your
14	complete :	name for the record?
15	А	Dr. Yaron Menczel.
16	Q	Okay. And I understand that you're located
17	in Israel	today; is that correct?
18	А	That is correct.
19	Q	Are you an Israeli citizen?
20	А	I am.
21	Q	Are you also a U.S. citizen?
22	А	I am so.

- done to formalize the step 9 of the patent, which is
- the formula. The CR of the output is equal to the
- 3 summation of V1 times LUT 1 of the input number plus
- 4 UL times LUT2 of the 1 input CB by W1. Similarly, the
- output CB is equal to the summation of V2, LUT3 of
- input CR out by U2, U2, LUT4, input CB to W2. Being
- 7 C, these formulas that they put 14, you get 42.
- 8 Q Okay. Let's use -- let's discuss -- let's
- 9 use look-up table 1 as an example. Look-up table 1 as
- discussed in the '012 Patent will receive a particular
- input color component; is that correct?
- 12 A Yes.
- Q That is the input to look-up table 1,
- 14 correct?
- 15 A Yeah. If it's here...
- 16 Q And the output of look-up table 1 will be a
- particular color component; is that correct?
- 18 A No. It will be --
- 19 Q What is the output --
- 20 A This is some kind of permitted number to be
- used in a complex formula.
- Q Okay. So your position is that the output

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- of look-up table 1 is not a particular color
- ² component.
- 3 A Correct.
- 4 Q Okay. Does look-up table 1 provide a
- 5 specific output based on a specific input?
- 6 A Correct.
- 7 O That is correct?
- 8 A Yeah. It has nothing to do with colors.
- ⁹ The input is colors. The output is not colors.
- O Okay. But for any given input, there will
- be a specific output, a single -- sorry. Let me
- 12 rephrase.
- For any given input to look-up table 1,
- there will be a single and specific output; is that
- 15 correct?
- 16 A Correct.
- Okay. Now, is that true for look-up tables
- 18 2, 3, and 4 as well?
- ¹⁹ A Correct.
- Q Okay. Could you take a look at paragraph
- 21 21.
- 22 A I do.

- Okay. So you state the four look-up tables
- that contain complex formulas far exceed simply
- mapping an input color to an output individual color,
- 4 correct?
- 5 A Correct.
- O Okay. But do you agree with Dr. Richardson
- ⁷ that the function of the look-up tables ultimately is
- 8 to map an input color to an output individual color?
- 9 A No.
- MR. LEE: Objection. Form.
- 11 A To say that something is used in the middle
- of a process doesn't mean it's the process.
- 13 Q (By Mr. Ting) Okay. But the look-up tables
- are used to map an input color to an output individual
- 15 color, correct?
- 16 A In a complex way.
- O Sorry. Could you repeat that last question?
- 18 A In a very complex way.
- 19 Q In a complex way. But it is mapping input
- 20 color to an output individual color, correct?
- 21 A The only -- my car is used to drive it. In
- that particular way. Now there is LUTs in the

Page 57 1 That is the point of my answer. process. 2 0 I'm sorry. Can you repeat that last answer? 3 There is only in my answer -- somehow used Α 4 for my -- driving my car. 5 Could we go with that one more time? 0 6 reporter didn't get it. 7 I said the LUTs are used in the process but a very complex way. 9 0 The LUTs are used --10 And I give an example that a car engine has 11 oil. It is used as part of the driving -- the part of 12 making the car drive. It's complicated how it -- how

- two pieces. They do not map color to output
- 15 individual color. They are used in the process.
- Q (By Mr. Ting) Okay. So is it fair to say
- that the four look-up tables, look-up tables 1 through

the oil comes in, how the car moves. Similarly, these

- 4, they utilize complex formulas in order to map an
- input color to an output individual color; is that
- 20 correct?

13

- A Not -- no, it's not correct.
- Q What's incorrect about that?

- 1 A They are used in the process, but they don't
- do mapping of input color to an output individual
- 3 color.
- 4 Q And why don't they do mapping?
- 5 A As I said, it's a formalized step 9. The
- formula of step 9 says how exactly the output colors
- ⁷ are decided. For instance, there is a color V1 which
- 8 totally changes it. Without V1, you do not have a
- 9 color. So you cannot say that the four LUTs are used
- to give you a color.
- If you don't know the V1, U1, W1, V2, U2,
- 12 W2, you cannot get an output color. So it's wrong to
- say it's a mapping from one color to color, because
- it's not correct. There are other things. I give the
- example of the engine. There is oil and there is gas.
- Another thing. I sure there's 20 pistons. But there
- are a lot of things that make the engine work.
- There are a lot of things that make the
- output individual color happen, the four LUTs happen
- to be one of them, not the entire stuff.
- O Okay. So where does color -- where does V1
- 22 come from?

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		Page 59
1	А	Constant.
2	Q	Did you say constant?
3	A	Uh-huh.
4	Q	So is it fair to say that inputting a color
5	into the	look-up tables will result in an output of a
6	single an	d specific individual color?
7	А	No.
8	Q	And is that because of the complex formulas
9	you discu	ssed?
10	А	Correct.
11	Q	And is it your opinion that the complex
12	formulas	are a part of the look-up tables?
13	A	No. Look-up table are used as part of the

- 13 A No. Look-up table are used as part of the
- 14 formulas. Not the other way around.
- 15 Q Okay. So the look-up tables are involved in
- helping to map an input color to an output individual
- 17 color, correct?
- 18 A That's correct.
- Q All right. So turning now to your
- declaration, if you can turn to page 7 of your
- ²¹ declaration.
- A Yeah.

- Okay. So let me backtrack real quick. So
- take a look at paragraph 21.
- 3 A I'm there.
- 4 Q You state the four look-up tables, LUT1
- 5 through LUT4, that contain complex formulas far exceed
- 6 simply mapping an input color to an output individual
- 7 color. Do you see that?
- 8 A I see it.
- 9 Q So when you state that the four look-up
- tables contain complex formulas, was that an incorrect
- 11 statement?
- 12 A It could -- now, it is a correct statement,
- but it's not the entire statement, because they're
- used in a complex formula. If I --
- 15 O Okay. So --
- 16 A I'll rewrite it a little differently because
- they're used in -- the correct -- contain the correct
- 18 formula, but they're always used in complex formulas.
- 19 So I'm basically looking at 21.
- 20 Q So can you just give me the full sentence
- 21 how you would rewrite it?
- MR. LEE: Objection. Form.

```
Page 63
1
               And you're referencing paragraph 26,
          Q
    correct, for the citation?
2
3
         Α
               Yes.
               Okay. So this is the -- the only use of
4
          0
5
    specification support for your alternate construction
6
    are the citations in paragraph 23 and paragraph 26,
7
    correct?
                         Objection.
               MR. LEE:
                                      Form.
9
          0
               (By Mr. Ting) Dr. Menczel, is that correct?
10
          Α
               Correct.
11
          0
               Can you please turn to paragraph 26.
12
               I'm there.
         Α
13
          Q
               Do you see in the middle of paragraph 26
14
    where you write: But, Dr. Richardson's analysis is
15
    erroneous because a portion of the specification cited
16
    by Dr. Richardson concerns a nonlimiting, preferred
17
    embodiment, the YCBCR color space. Do you see that?
18
         Α
               I do.
19
               What do you mean by "nonlimiting preferred
          0
20
    embodiment"?
21
               Specification, as I understand them, I'm not
         Α
22
    a lawyer, give examples of how to make the -- how to
```

- 1 make the method. Specific way to make the methods.
- 2 But there can be many of them. We do not have to --
- we do not have to list or enumerate every possible way
- 4 of implementing the method. So this one is the method
- of embodiment, probably preferred, but definitely not
- 6 limited. There may be others.
- Okay. Now, you do not identify anywhere in
- 8 the '012 Patent where the specification describes how
- ⁹ the method of the present invention is applicable to
- other formats other than the YCBCR color space; is
- 11 that correct?
- MR. LEE: Objection. Form.
- 13 A I think you are right. It's only described
- 14 in the YCBCR.
- Q (By Mr. Ting) Okay. So is it fair to say
- that the '012 Patent specification only teaches a
- person of ordinary skill in the art how to implement
- its method in the YCBCR color space; is that correct?
- MR. LEE: Objection. Form.
- 20 A It's an example, but it says -- and I would
- say, that the method of the pertinent invention is
- 22 applicable to other formats.

```
Page 65
1
               (By Mr. Ting) Right. It states that the
         Q
2
    method of the present invention is applicable to other
3
    formats, but it doesn't actually teach how the method
4
    would be implemented in other formats; is that
5
    correct?
6
                         Objection.
              MR. LEE:
                                     Form.
7
         Α
               I guess, but you know, there are many
    formats. There could be more than a thousand formats.
9
    You do not expect to match specification with every
10
    possible format.
11
         0
               (By Mr. Ting) Okay. But in this particular
12
    instance, the only format that the patent teaches how
13
    to implement -- let me rephrase the question.
14
               But the '012 Patent only teaches how to
15
               implement
16
    its method in the YCBCR color space, correct?
17
               MR. LEE:
                         Objection.
                                     Form.
18
         Α
               It gives an embodiment in the YCBCR color
19
    space.
20
               (By Mr. Ting) Okay. And there's no other
         Q
21
    embodiments about any other color spaces, correct?
22
         Α
              Correct.
```

```
Page 66
1
               Okay. And the patent does not actually
          Q
2
    describe how the method is to be applied to other
3
    formats, correct?
               It doesn't give an embodiment in other
5
    formats.
6
               Okay. So it does not have that description,
          Q
7
    correct?
8
               For -- there's no embodiment for other
         Α
9
    formats.
10
                      And nowhere in your declaration do
          0
11
    you explain how the patented method would be
12
    applicable to other formats, correct?
13
          Α
               I would not -- this is not part of the term
14
    construction.
```

- Q Okay. So the answer is no, correct?
- 16 A Correct.
- Okay. Now, the term chromatic components.
- 18 That's not limited to the YCBCR color space; is that
- 19 correct?
- A No. It's not limited.
- Q Okay. So, for example, are you familiar
- with YUB, the YUB color space?

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Page 67 1 Α Yes. 2 0 And you understand that chromatic components 3 are used to refer to the UB portion of YUB, correct? 4 Α Correct. 5 And are you also familiar with the YIQ color 0 6 space? 7 Α I do. And the term chromatic components refers to Q 9 the IO portion of YIO; is that correct? 10 Α Correct. 11 0 Okay. So your only disagreement with the 12 defendant's proposed construction is because you 13 believe that defendant's and Dr. Richardson are only 14 analyzing one embodiment in the patent; is that 15 correct? 16 MR. LEE: Objection. Form. 17 That -- they are making a conclusion based Α 18 on the fact there is only one embodiment of YCBCR to 19 define many -- the get a conclusion that simply works. 20 (By Mr. Ting) Okay. Now, Dr. Richardson's Q 21 analysis of this claim term is correct for that 22 embodiment that discusses the -- that you refer to as

- the YCBCR color space embodiment, correct?
- 2 A But the specification is not on that -- is
- not on that color space. The specification is general
- for every color space. So the question is -- is
- ⁵ irrelevant.
- Okay. Whether -- regardless of whether you
- believe my question is irrelevant, is Dr. Richardson's
- 8 analysis of this claim term correct for the one
- 9 embodiment that is disclosed?
- MR. LEE: Objection. Form.
- A We're not doing a claim on one embodiment.
- 0 (By Mr. Ting) Okay. So in your
- declaration, you do not dispute that Dr. Richardson's
- analysis is correct for that one embodiment. Is that
- 15 correct?
- 16 A I dispute it.
- Q Why do you dispute that his analysis
- incorrect for that one embodiment?
- 19 A Because he put words into the claim that are
- not good. Like he used the word chromatic components.
- It's not part of the claim.
- 22 Q So you believe that his construction and his

- opinions are incorrect because he's using words that
- are not part of the claim; is that correct?
- MR. LEE: Objection. Form.
- ⁴ A He used, in his construction, the word
- 5 chromatic component. There is no reason to put it in.
- 6 Q (By Mr. Ting) Okay. Do you see the
- ⁷ sentence in the middle of paragraph 26 where you
- 8 write: But the specification is explicit that patent
- 9 claims applies to many formats, not just formats that
- Dr. Richardson seeks to import, followed by a
- quotation to the '012 Patent. Do you see that?
- 12 A Uh-huh.
- Q Okay. What do you mean by formats Dr.
- 14 Richardson seems to import?
- A He's trying, I believe, to import a
- limitation into the claim that is -- basically are not
- 17 good.
- Q And you believe that the -- sorry, what is
- the basis -- what is the language that he uses that
- you believe is importing other formats?
- MR. LEE: Objection. Form.
- 22 A It's chromatic components.

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Page 70 1 (By Mr. Ting) Q Okay. 2 Α The chromatic components. 3 So chromatic components, correct? 0 4 Α Yes. 5 Can you please turn to paragraph 28 of your 0 6 This is on page 8 under subsection C for declaration. 7 the claim term, color control parameters. Do you see 8 that? 9 I do. Α 10 Paragraph 28 through 33 contain the 11 entire sum of your opinions regarding this term; is 12 that correct? 13 Α Correct. 14 What is your definition of the term 0 15 parameter? 16 We look in the dictionary, so I believe the Α 17 dictionary, I looked before, and it says a program 18 that is given a constant value for a specified 19 limitation. 20 So in offering your opinion regarding Q Okay. 21 the construction of color control parameters, you took 22 the term and looked it up in a dictionary, correct?

Page 71 1 Α Correct. 2 0 And that's all you did, correct, you went to 3 the dictionary and looked up the term? 4 Α For the claim, the word color control 5 parameter is self-understood by a person of ordinary 6 skill in the art. And if it's needed, then I would 7 look the word -- I tried to look for color control I couldn't find it. I found parameter and parameter. 9 this is the value I got for parameter. 10 0 Okay. So to -- sorry. 11 Okay. So to analyze this claim term, you 12 simply 13 took the claim term and tried to look it up in the new 14 IEEE Standard Dictionary of Electrical and Electronic 15 Terms, Fifth Edition, 1993, correct? 16 MR. LEE: Objection. Form. 17 (By Mr. Ting) Is that correct, Dr. Menczel? 0 18 I said yes. Α 19 Okay. So can you please take a look at 0 20 paragraph 30. So in paragraph 30, you are relying on 21 the arguments you previously made -- let me rephrase 22 that.

```
Page 72
1
              Do you see in paragraph 30 where you said,
2
    Earlier, I explained how Dr. Richardson attempts to
3
    limit claim terms to YCBCR color space, which is
4
    erroneous?
5
               I do.
         Α
6
         0
               When you say "earlier," what are you
7
    referring to?
8
               The section before, about color component
         Α
    functions. Yes.
9
                       Section B.
10
               Okay. So just to clarify, you're referring
         0
11
    to your -- the opinions you offered in section B,
12
    individual color control functions, correct?
13
         Α
               Yes.
14
               So you have nothing in addition to add
         0
15
    beyond that for -- for this term, correct?
16
               MR. LEE: Objection. Form.
17
              No, I also say part of 31. Previously, I
         Α
18
    have already explained the look-up table do not merely
19
    contain color input and color output mapping.
20
               (By Mr. Ting) Okay. So let me rephrase my
         Q
21
    question.
22
               So when you say, Earlier, I explained how
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Page 77
 1
                      So when we're discussing viewer,
          Q
 2
    we're discussing viewer as it's used in claim 17 of
 3
    the '012 Patent, correct?
          Α
               Correct.
 5
               Now, can you take a look at claim 17 of the
          0
 6
     '012 Patent?
 7
               MR. LEE:
                        '435.
 8
               (By Mr. Ting) I'm sorry, the '435 Patent?
          Q
 9
    Claim 17 of the '435 Patent?
10
               Hold on.
          Α
                        '435.
11
               The '435 Patent, for the record, is Exhibit
         0
12
    4. And let me know when you're at claim 17 of the '435
13
    Patent.
14
         A
              I'm there.
15
               Okay. Now, you state that a person -- that
         O
16
    one of ordinary skill in the art would understand the
17
    meaning of the term viewer; is that correct?
18
         A
               Correct.
19
               What would a person of ordinary skill in the
         0
20
    art understand the term viewer to mean?
21
         A
               Exactly what it says.
22
              But -- but if I was going to ask you to tell
         Q
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Page 78 1 me what the viewer is, what would you say? 2 A Somebody that views. 3 Did you say somebody that views? 0 A Uh-huh. 5 0 So a person that views, correct? 6 A Correct. 7 So why don't we take a break. MR. TING: 8 just want to check my notes. I believe I'm ready 9 to pass the witness. Let me just confirm. 10 we --11 Matt, do we want to take a longer break to 12 let you get ready to take over? 13 MR. HOLOHAN: I think we can just do five minutes. Unless the witness wants longer. 14 15 MR. LEE: Dr. Menczel, would you like 16 longer? 17 THE WITNESS: Maybe 10, a little longer. 18 Okay. Let's do 10 minutes. MR. TING: 19 Quick question. Are we getting MR. LEE: 20 close to being done on your end? I just know 21 that he's about eight hours ahead of you guys. 22 This is for Matt.

	Page 79
1	MR. HOLOHAN: I think
2	MR. TING: Yeah, I'm 99 percent certain for
3	Acer that I'm done, so, Matt, I don't know how
4	long you had planned.
5	MR. HOLOHAN: I think my questioning will
6	take an hour at the very longest. Most likely
7	less than that.
8	MR. LEE: Thank you. I appreciate it.
9	Let's take a ten-minute break.
10	THE WITNESS: Okay.
11	(Recess from 11:15 a.m. to 11:25 a.m.)
12	MR. TING: This is Michael Ting. I will
13	pass the witness to Matt Holohan.
14	MR. LEE: And Doctor, you're back?
15	THE WITNESS: I'm back, yes.
16	EXAMINATION BY MR. HOLOHAN:
17	Q All right. Good evening, Dr. Menczel. My
18	name is Matt Holohan. I'm representing Sharp
19	Electronics Corporation. I have a few more questions
20	about some of the other terms that Acer's counsel did
21	not ask you about.
22	I'm going to be jumping around a little bit

- ¹ regular red.
- O (By Mr. Holohan) Okay. So focusing on
- defendant's proposed alternate construction for
- 4 individual color, which is the linear combination of
- base colors, you're saying that even if you were to
- 6 define a color at a specific linear combination --
- ⁷ actually, strike that question.
- 8 You say, in the regular world, a color
- 9 defined as
- 10 a linear combination of base colors would still be a
- 11 range of colors. But in the digital world, you could
- 12 actually express a color as a specific linear
- combination of base colors, right?
- MR. LEE: Objection. Form.
- A Again, the issue here was that the -- and
- the defendant inventor, and the defendant used the
- word "specific." That was the example that was given.
- 18 The fire engine red.
- Okay. We take out the words "specific" in
- the definition, because the definition is not -- in
- the second part, with the linear combination of color
- components, such as red, green, blue, yellow, cayenne,

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- and magenta, it's fine. We'll even be on the same
- combinations, but other -- other than that, we're
- 3 saying the same thing. The issue here is, specific or
- 4 not specific.
- 5 Q (By Mr. Holohan) Okay. So the only --
- A And my chosen words of fire engine red, is
- 7 probably not the best picture of it.
- 8 Q Okay. So your objection to defendant's
- 9 proposed construction is just the use of the word
- "specific." Is that accurate?
- 11 A Yes.
- 12 O Okay.
- 13 A And -- and component. Still a component.
- 14 Because as you say, it's particular for the
- definition, the specification, that it says component.
- So I say -- I'm going to say, linear
- combination; could be I meant combinations. Not
- 18 component. Component is in both -- both
- 19 constructions.
- 20 Q Okay. So --
- 21 A The combination --
- 22 Q So you say that an individual color needs to

- be combinations, plural, not a linear combination.
- ² A Yes, exactly.
- O Okay. But in the specification cites that I
- ⁴ just read to you, in column 1 of each patent, it just
- 5 says, A linear combination of colors or color
- 6 components, right?
- 7 A Let me see. Certain linear combination,
- 8 singular, yes.
- 9 Okay. Can you please -- if you look at
- pages 13 and 14 of your declaration, can you just tell
- me where those images that you reproduced in your
- declaration came from?
- 13 A Two of them -- two of them. Took them both
- out to be -- talking about the color spectrum.
- 0 Yes.
- 16 A The general note. They're coming from the
- 17 Internet.
- Q Okay. You just found them on the Internet?
- 19 A Yes.
- Q All right. And when you talk about, in
- paragraph 42, the six corners of the RGB cube, each
- one of those corners can be defined as a linear

Page 93 1 Which are red, blue, yellow, magenta, and Α 2 cayenne. 3 Right. So red, green, blue, yellow --0 Α And here they use the word, linear 5 combinations, plural. 6 Okay. So I just want to clarify something. Q 7 So it says the individual color components 8 are 9 red, green, blue, yellow, magenta, and cayenne, and 10 those have the 255 saturation values, right? 11 Α Yes. 12 So is an individual color the same as an 0 13 individual color component? 14 MR. LEE: Objection. Form. 15 Α It says in the one you quoted, Color one, 16 herein, and it's '012 patent, in line 19 through 24, 17 herein, and the blue color, present the linear combination of colors or color component. Which from 18 19 that, my understanding, they're the same thing. 20 (By Mr. Holohan) Okay. And then in Q

21

22

paragraphs 45 to 49, you talk about equations and the

'435 Patent and also adjusts the color components red,

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Page 94
1
    green, and blue, right?
2
         Α
               From cayenne and magenta and yellow.
3
               Okay. But it's color components that are
          0
4
    being adjusted in those equations, right?
5
               It says color blue.
         Α
6
          0
               Color what?
7
               For limiting it. . . when I -- if we go to
         Α
    the '435, I'm sure we visit the word color component,
9
    and it says -- after. . . it says, Identify each input
10
    image picture having red, R, as the original color
11
    whose hue or saturation was selected to be
12
    independently changed. So I don't see the word
13
    "component" here.
14
               Right. But if we -- in the '012 Patent,
          0
15
    red, green, and blue, yellow, cayenne, and magenta
16
    were individual color components and it's those same
17
    -- the same colors that are being manipulated in the
18
     '435 Patent in the specification cites you're
19
    reporting to, correct?
20
               Yeah --
         Α
21
                         Objection.
               MR. LEE:
                                     Form.
22
               -- I think you need to change the word
         Α
```

```
Page 95
1
     "component" for "color" for the words there.
2
          0
               (By Mr. Holohan)
                                  I'm sorry.
                                              Sav that
3
    again?
4
               I think you need to change the word "color"
          Α
5
    for "color component" in both patents.
6
               So your view is the color and color
          Q
7
    component are interchangeable in the patents?
8
         Α
               Yes.
9
               Okay.
          0
10
         Α
               Yes.
11
               Do you agree that the term "individual
          0
12
    color" should have the same meaning in both the '012
13
    and the '435 Patents?
14
          Α
               Yes.
15
                      If you could turn back a few pages to
          0
               Okay.
16
    page 10 of your declaration. I want to talk about the
17
    term, Whereby all other colors of the digital video
18
    input image remain unchanged.
19
               Now, the defendant's proposed construction
20
    is, Whereby all other pixels of the digital video
21
    input image without the same color component values
22
    remain unchanged. In your opinion, is that the term
```

```
Page 96
1
    should be given its plain and ordinary meaning, or
2
    alternatively, whereby all colors of the digital video
3
    input image without the same color component values
4
    remain unchanged. So would you agree with me that the
5
    -- the disagreement between the parties here is the
6
    use of the word pixels as opposed to colors?
7
          Α
               I think so, yeah.
               Now, in digital video image, colors are
          Q
9
    expressed as pixels, right?
10
         Α
               No.
11
          0
               How is that incorrect?
12
               Colors are attributes of pixels.
         Α
13
          Q
               Colors are?
14
               Attributes of pixels.
         Α
15
               Attributes of pixels. What other attributes
          0
16
    of pixels are there besides color?
17
         Α
               Luminance.
18
                      Anything else?
          0
               Okay.
19
               Colors. Luminance. I guess the pixels
         Α
20
    themselves, by the resolution and depth of field, also
21
    do express something.
22
          Q
               Okay.
                      But --
```

- A And the number of them and how big they are
- ² and other expressions.
- O Okay. Is there any way in digital video, in
- 4 a digital video image, that a color would be expressed
- other than using a pixel to express the color?
- 6 A Colors appear in an attribute of pixels.
- 7 O Right. So if the --
- 8 A The perception you get is after you look at
- 9 many pixels, you get a perception of color.
- Q All right. So if -- if --
- 11 A But, again, the colors are not pixels --
- 12 you're putting words in the claim that is not really
- there. The claim they write -- to use the word
- "pixel" is included. He uses the word pixel other
- 15 places in the claim.
- Q Right. So --
- 17 A If he wants to put there -- yes.
- O If you're changing a color in a video
- display, what you're doing is changing the pixels that
- are expressing that color, right?
- 21 A If you -- that -- the implementation may use
- color pixels. But that's implementation only.

- 1 Q That's implementation only?
- 2 A Yeah. The document, this implementation,
- 3 shows you how to take bits, because you have pixels,
- 4 and change them, either by look-up table or directly,
- 5 depends in the patent that we are talking.
- 7 would allow to you change colors without changing
- 8 pixels?
- ⁹ A There -- there may be. There may not be.
- 10 But that's not the issue. The issue is what remains
- in this construction. The construction is, other
- 12 colors in the digital video input image remain the
- same. We didn't say pixels remain the same. We said
- colors remain the same. That's one. I gave you
- another one. It's luminance. It can make a
- difference here.
- Q Okay. But you're not able to identify any
- implementations in which you could change colors
- without changing pixels. Is that fair to say?
- MR. LEE: Objection. Form.
- 21 A Say it again. If you, what, if you like
- pixels, you may change -- you may change and not

- change luminance. And here, we're not talking about
- luminance. We're talking about colors.
- Q (By Mr. Holohan) But if you are changing
- 4 colors, you are changing pixels, right?
- 5 A A way to implement it is by changing pixels.
- 6 O And you're not able to --
- A But that -- but the method is here that you
- 8 are not changing other colors. Not other pixels. An
- 9 example, if you change a pixel and you leave the color
- 10 as is, but you change the luminance, the pixel has
- changed, and the color hasn't changed. Okay? In your
- definition, you -- you took this as a subset of the
- method. And that's -- of the claim, and that's not
- what the claim record indicated.
- 15 Q I understand you can change pixels without
- changing colors. But when I'm trying to clarify that,
- and I don't think we're in disagreement on this, is
- that you cannot change colors without changing pixels.
- 19 Is that accurate?
- 20 A Okay. But that -- maybe. But that's not
- what you're saying. You're saying all other pixels of
- the video input image without the same color component

```
Page 106
1
    color orange be affected?
2
               MR. LEE: Objection.
                                      Form.
3
               Only the colors -- only colors -- only the
         Α
4
    red color will be affected.
5
               (By Mr. Holohan) But --
          0
6
               Any other color would not be affected.
         Α
7
          0
               But orange --
8
         Α
               And when you say "other," you have to be
    very careful how to decide -- how they decide each
9
10
             Okay? If the orange is not defined as a red,
11
    then it will not be affected.
12
               Okay. So if I defined -- if I define --
          0
13
    okay.
14
               So the color orange has red as a component,
15
    right?
16
               But it -- has not -- every color might have
         Α
17
    red as a -- as a base vector that measures into the
18
    combination. The bottom thing is, is how the linear
19
    combinations are defined.
20
               Okay. So if the color orange in a video
          Q
21
    display is defined such that it has a red component in
22
    it, okay?
```

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Yaron Menczel

- A Again, not -- not the implementation.
- 2 O Not what?
- A If, bearing to the issue, if we define the
- 4 colors as -- can be one color is orange -- is red, and
- 5 then define in explicit, nonmutual color as orange,
- then the orange will not be affected. If the orange
- ⁷ happened to be part of the red, then the orange will
- 8 be affected. It's all -- all depends on the
- 9 definitions in what color is for every color.
- 10 Q Right. So that's what I'm asking. If you
- have a display implemented in such a way that orange
- is -- that orange includes red as a component --
- 13 A It's not a matter of a component. It a
- 14 matter of how far you define the spectrum of red to
- include, to go far enough, and you contain the orange
- in red, the orange is part of the red. It's a method
- of definition. It's up to the inventor to define each
- color, what it is. That's why I was so careful to say
- 19 colors and not pixels.
- Q Okay. So it's possible to implement the
- '012 Patent in a way where the definition of red
- includes orange. So if I adjust red, I'm also

```
Page 108
1
    adjusting orange.
                        Is that accurate?
2
              MR. LEE:
                        Object to form.
3
               If -- if you define red that is very wide,
         Α
4
    define the orange as colors, then that's -- that's
5
    omitted, yeah.
6
         0
               (By Mr. Holohan) Then that's what?
7
         Α
               That's what it implies.
8
              And that implementation would fall within
         Q
9
    the '012 Patent, right?
10
                     Because the patent '012 or '435 do not
         Α
11
    give the way to how to divide the colors. Where is
12
    the line.
13
         Q
               Okay. All right. So I want to skip over to
14
    page 20 of your declaration, where you talk about the
15
    term, Without affecting the hue or saturation of any
16
    other individual color. Let me know when you have
17
    that in front of you.
18
         Α
               I do.
19
         0
               Okay.
20
               I think we should take a break -- take a
         Α
21
    break by now because it's an hour.
22
                             Okay. That's fine.
              MR. HOLOHAN:
                                                   I thought
```

```
Page 109
1
         I would get this done in an hour, but looks like
2
         I have another 20 minutes or so. So we can take
3
         a five-minute break.
               THE WITNESS: Okay.
5
               (Recess from 12:11 p.m. to 12:20 p.m.)
6
              MR. HOLOHAN:
                            All right. Let's go back on.
7
         0
               (By Mr. Holohan) Dr. Menczel, just talking
    briefly about the claim of limitation. Without
9
    affecting the hue or the saturation of any other
10
    individual color which is from the '435 Patent,
11
    similar to the '012 Patent, the term you were just
12
    talking about, could I construct a system, according
13
    to the '435 Patent, where the color red is defined
14
    such that if I adjust the hue of red, I will also
15
    adjust the hue of orange?
16
                       Object to form.
              MR. LEE:
17
               Exactly as we said before. If orange will
         Α
18
    be defined as part of red in the perception and the
19
    way you define the parameters in the '435 Patent, then
20
    obviously when you change the color red as -- the
21
    color that looks to you particularly orange will also
22
    be affected.
```

- 1 Q Let me just ask.
- 2 A Dr. Richardson is saying it's not -- it's
- not teaching us what the acceptable range will be.
- 4 Okay? So he's saying, it can be anything from a
- single integer. He doesn't really get to the point
- that we're talking about a range. He said, Single
- ⁷ integer to an infinite number within this -- he didn't
- 8 say boundaries. That was the problem with his
- 9 definition.
- 10 Q So does the patent give boundaries?
- 11 A He could have written -- could be anything
- 12 from an integer, one single integer to another. So
- from one integer to another integer, where each
- integer can be a single integer to an infinite number
- to -- no, any -- so where each integer can be of
- single value, with zero value, to an infinite value,
- then I may agree. It's -- he's talking about a
- number. He's talking single integer. He's talking
- 19 about infinite number of integers. He's not talking
- about the range.
- Q Okay. So when you say a range of integers,
- would you agree that when the patent says -- the '435

- 1 Patent says arbitrary interval with integers, that
- 2 could be a range of zero to an infinite number of
- 3 integers?
- 4 MR. LEE: Objection. Form.
- 5 A I don't understand what infinite number of
- 6 integers means. I know integer has a value of
- ⁷ infinite. I don't understand what an infinite number
- of integers in this context means.
- 9 O (By Mr. Holohan) Well, let me ask you: In
- your opinion, what is the upper limit on the range of
- the interval of integers in the '435 Patent?
- 12 A Arbitrary.
- Q So there's no upward limit on what the range
- 14 could be.
- 15 A Yes.
- Q And it could be a -- it could be as small as
- one integer or two, right?
- A Again, the range -- you're talking about the
- ¹⁹ range size.
- Q Yes.
- 21 A Okay. He didn't say the word "range size."
- Q I'm asking for your opinion. How small can

- the range be? Can it be one integer?
- A Again, it could -- it's designed in whole
- numbers. That's why he used the word "integers" here,
- 4 and it can be any number between zero to any arbitrary
- 5 number you want.
- Q Okay.
- ⁷ A The size of the range.
- 8 Q Okay. Why do you say that the interval
- 9 between minus 1 and plus 1 in claim 6 of the '435
- 10 Patent contemplates fractions?
- 11 A Because that's how it appears in the patent.
- 12 If you look at the formula that he uses in '435, he
- uses numbers between minus 1 and plus 1.
- Q Where in the '435 Patent are you looking for
- 15 that?
- A As an example, if you look at column 13.
- Okay? Where he defined the value HR. The value of HR
- is defined, I believe, internally between minus 1 to
- 19 plus 1. It should say somewhere, I think, because you
- can see the formula. He uses 1 minus HR and then he
- uses HR. Okay? Internally, when he calculates, he
- uses a number between minus 1 to plus 1. In -- for

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Page 125 1 understand what everybody wants. 2 Yes, for Acer. MR. TING: 3 I need to check with my client and MR. LEE: 4 get back to you on that, Jason. 5 THE REPORTER: Very good. 6 MR. HOLOHAN: Yes for us. 7 (Deposition adjourned at 12:45 p.m.) 9 10 11 12 13 14 15 16 17 18 19 20 21 22

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4					
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